SAFETY DATA SHEET

Revision date 04-May-2022

| 1. Identification | | | |
|--|--|--|--|
| Product identifier | | | |
| Product Name | OXALIC ACID, DIHYDRATE, CRYSTAL, TECHNICAL | | |
| Other means of identification | | | |
| Product Code(s) | O1026 | | |
| UN/ID no | UN3261 | | |
| Synonyms | None | | |
| Recommended use of the chemical and restrictions on use | | | |
| Recommended use | No information available | | |
| Restrictions on use | No information available | | |
| Details of the supplier of the safety data sheet | | | |
| Supplier Address Spectrum Chemical Mfg. Corp. 14422 South San Pedro St. Gardena, CA 90248 (310) 516-8000 | | | |
| Emergency telephone number | | | |

Emergency Telephone

Chemtrec 1-800-424-9300

2. Hazard(s) identification

Classification

| Acute toxicity - Oral | Category 4 |
|--|---------------------------|
| Skin corrosion/irritation | Category 1 Sub-category A |
| Serious eye damage/eye irritation | Category 1 |
| Specific target organ toxicity (single exposure) | Category 3 |
| Specific target organ toxicity (repeated exposure) | Category 2 |

Hazards not otherwise classified (HNOC)

Not applicable

Label elements

Danger

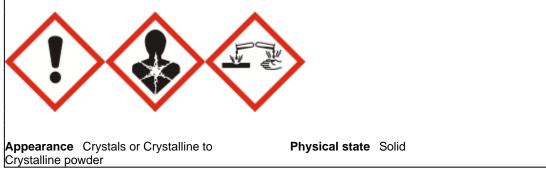
Hazard statements

Harmful if swallowed Causes severe skin burns and eye damage



Revision Number 3

May cause respiratory irritation May cause damage to organs through prolonged or repeated exposure



Odor Odorless

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Wear protective gloves/protective clothing/eye protection/face protection Do not breathe dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

Immediately call a POISON CENTER or doctor Specific treatment (see .? on this label) IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower Wash contaminated clothing before reuse IF INHALED: Remove person to fresh air and keep comfortable for breathing Immediately call a POISON CENTER or doctor IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell Rinse mouth Do NOT induce vomiting

Precautionary Statements - Storage

Store locked up. Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other information

No information available.

3. Composition/information on ingredients

Substance

| Chemical name | CAS No | Weight-% | Trade secret |
|------------------------|-----------|----------|--------------|
| Oxalic Acid, Dihydrate | 6153-56-6 | 100 | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First-aid measures

Description of first aid measures

General advice

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

| Inhalation | Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical advice/attention. | |
|--|--|--|
| Eye contact | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical advice/attention. | |
| Skin contact | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical advice/attention. | |
| Ingestion | Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical advice/attention. | |
| Self-protection of the first aider | Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. | |
| Most important symptoms and effe | ffects, both acute and delayed | |
| Symptoms | Burning sensation. | |
| Indication of any immediate medical attention and special treatment needed | | |
| Note to physicians | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. | |

| 5. Fire-fighting measures | | |
|--|--|--|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. | |
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. | |
| Unsuitable extinguishing media | Do not scatter spilled material with high pressure water streams. | |
| Specific hazards arising from the chemical | The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors. | |
| Hazardous combustion products | Carbon Monoxide, Carbon Dioxide. | |
| Explosion data Sensitivity to mechanical impact none. | | |
| Sensitivity to static discharge | none. | |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. | |

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

 Personal precautions
 Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Attention! Corrosive material. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

| Other information | Refer to protective measures listed in Sections 7 and 8. | | | |
|--|--|--|--|--|
| Methods and material for containment and cleaning up | | | | |
| Methods for containment | Prevent further leakage or spillage if safe to do so. | | | |
| Methods for cleaning up | Pick up and transfer to properly labeled containers. | | | |

7. Handling and storage

Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with Advice on safe handling skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid breathing vapors or mists.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.

8. Exposure controls/personal protection

Control parameters

Exposure Limits

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------------|-------------------|---|------------|
| Oxalic Acid, Dihydrate | No data available | 1 mg/m ³ TWA (for Oxalic acid, | - |
| 6153-56-6 | | anhydrous) | |

Appropriate engineering controls

| Engineering controls | Showers Eyewash stations Ventilation systems. |
|------------------------------------|---|
| Individual protection measures, su | ich as personal protective equipment |
| Eye/face protection | Tight sealing safety goggles. Face protection shield. |
| Hand protection | Wear suitable gloves. Impervious gloves. |
| Skin and body protection | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Wash hands before breaks and immediately after handling the product. |

9. Physical and chemical properties

| Information on basic physical and c | chemical properties | | |
|-------------------------------------|---|------------------|--|
| Physical state | Solid | | |
| Appearance | Crystals or Crystalline to Crystalline powder | | |
| Color | White; Colorless | | |
| Odor | Odorless | | |
| Odor threshold | No information available | | |
| | | | |
| Property_ | <u>Values</u> | Remarks • Method | |
| pH | Acidic | None known 1 | |
| Melting point / freezing point | 101.5 °C / 214.7 °F | None known | |
| Boiling point / boiling range | no data available | None known | |
| Flash point | no data available | None known | |
| Evaporation rate | no data available | None known | |
| Flammability (solid, gas) | no data available | None known | |
| Flammability Limit in Air | | None known | |
| Upper flammability or explosive | No data available | | |
| limits | | | |
| Lower flammability or explosive | No data available | | |
| limits | | | |
| Vapor pressure | No data available | None known | |
| Vapor density | 4.4 | None known | |
| Relative density | 1.653 @ 18.5°C | None known | |
| Water solubility | Easily soluble in hot water | None known | |
| | Soluble in cold water | | |
| Solubility(ies) | Partially soluble in diethyl ether | None known | |
| conability(ico) | Soluble in Alcohol | | |
| | Soluble in Glycerol | | |
| Partition coefficient | No data available | None known | |
| Autoignition temperature | no data available | None known | |
| Decomposition temperature | | None known | |
| Kinematic viscosity | no data available | None known | |
| Dynamic viscosity | No data available | None known | |
| Dynamic viscosity | No data avallable | | |
| Other information | | | |
| Explosive properties | No information available | | |
| Oxidizing properties | No information available | | |
| Softening point | No information available | | |
| Molecular weight | 126.07 | | |
| VOC Content (%) | No information available | | |
| Liquid Density | No information available | | |
| Bulk density | No information available | | |
| Durk delibity | | | |
| | | | |

10. Stability and reactivity

| No information available. | |
|---|--|
| Stable under normal conditions. | |
| None under normal processing. | |
| Exposure to air or moisture over prolonged periods. | |
| Oxidizing agent. Acids. Bases. | |
| | |

Hazardous decomposition products None known based on information supplied.

11. Toxicological information

Information on likely routes of exposure

Product Information

| Inhalation | Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. May cause irritation of respiratory tract. |
|--------------|---|
| Eye contact | Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes. |
| Skin contact | Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns. |
| Ingestion | Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways. |

Symptoms Redness. Burning. May cause blindness. Coughing and/ or wheezing.

Acute toxicity

Numerical measures of toxicity

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------------------------|-------------------|-------------|-----------------|
| Oxalic Acid, Dihydrate 6153-56-6 | = 375 mg/kg (Rat) | - | - |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| Skin corrosion/irritation Serious eye damage/eye irritation | Classification based on data available for ingredients. Causes burns. Classification based on data available for ingredients. Risk of serious damage to eyes. Causes burns. |
|--|---|
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | May cause respiratory irritation. |
| STOT - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |
| Aspiration hazard | No information available. |
| Other advance offects | Na information quailable |
| Other adverse effects | No information available. |
| Interactive effects | No information available. |
| | |

| 12. Ecological information | |
|----------------------------|---|
| Ecotoxicity | The environmental impact of this product has not been fully investigated. |

| Persistence and degradability | No information available. |
|-------------------------------|---------------------------|
| Bioaccumulation | Inherently biodegradable. |

No information available.

13. Disposal considerations

Waste treatment methods

| Waste from residues/unused products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
|--|---|
| Contaminated packaging | Do not reuse empty containers. |

14. Transport information

DOT

| DOT | |
|---|--|
| UN/ID no Proper Shipping Name: Hazard class Packing group: Special Provisions Marine Pollutant Description: Emergency Response Guide Number | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III IB8, IP3, T1, TP33 Severe Marine Pollutant UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III 154 |
| <u>TDG</u> UN-No: Proper Shipping Name: Hazard class Packing Group: Description: | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III |
| MEX UN-No Proper Shipping Name Hazard class Special Provisions Packing Group Description | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 223, 274 III UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III |
| ICAO (air) UN-No: Proper Shipping Name: Hazard class Packing Group: Special Provisions Description: | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III A3 UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III |
| IATA UN number Proper Shipping Name: Transport hazard class(es) Packing group Description: | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III |
| IMDG UN number Proper shipping name Transport hazard class(es) Packing group EmS-No Special Provisions | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III F-A, S-B 223, 274 |

| Marine pollutant Description | NP1 UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III |
|--|--|
| <u>RID</u> UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Special Provisions Description: Labels | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III C4 274 UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III 8 |
| ADR UN number Proper Shipping Name: Transport hazard class(es) Packing group Classification code Tunnel restriction code Special Provisions Description: Labels | 3261 Corrosive solid, acidic, organic, n.o.s. 8 III C4 (E) 274 3261, Corrosive solid, acidic, organic, n.o.s., 8, III, (E) 8 |
| ADN UN/ID No Proper shipping name Transport hazard class(es) Packing Group Classification code Special Provisions Description Hazard label(s) Limited quantity (LQ) Equipment Requirements | UN3261 Corrosive solid, acidic, organic, n.o.s. 8 III C4 274 UN3261, Corrosive solid, acidic, organic, n.o.s., 8, III 8 5 kg PP, EP |

15. Regulatory information

International Inventories

| TSCA | Not listed |
|--|--|
| Note | *Contact supplier for details. One or more substances in this product are either not listed on the US TSCA inventory, listed on the confidential US TSCA inventory or are otherwise exempted from inventory listing requirements |
| DSL/NDSL EINECS/ELINCS ENCS IECSC KECL | Does not Comply Does not Comply This product complies with ENCS: This product complies with China: Does not Comply |

All the constituents of this material are listed on the Australian Inventory of Chemical

Legend:

PICCS

AICS

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

Complies

Substances (AICS).

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|------------------------|------------|---------------|--------------|
| Oxalic Acid, Dihydrate | - | - | Present |
| 6153-56-6 | | | |

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. Other information

NFPA Health hazards 3 Flammability 0 Instability 0 Physical and chemical properties -<u>HMIS</u> Health hazards 3 * Flammability 0 Physical hazards 0 Personal protection X

 Key or legend to abbreviations and acronyms used in the safety data sheet

 Legend
 Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

 TWA
 TWA (time-weighted average)
 STEL

 Ceiling
 Maximum limit value
 STEL

STEL (Short Term Exposure Limit)

Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database European Food Safety Authority (EFSA)

EPA (Environmental Protection Agency) Acute Exposure Guideline Level(s) (AEGL(s)) U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act U.S. Environmental Protection Agency High Production Volume Chemicals Food Research Journal Hazardous Substance Database International Uniform Chemical Information Database (IUCLID) Japan GHS Classification Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS) NIOSH (National Institute for Occupational Safety and Health) National Library of Medicine's ChemID Plus (NLM CIP) National Library of Medicine's PubMed database (NLM PUBMED) National Toxicology Program (NTP) New Zealand's Chemical Classification and Information Database (CCID) Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program Organization for Economic Co-operation and Development Screening Information Data Set World Health Organization **Revision date** 04-May-2022 **Revision Note** No information available.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet